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Task Force on the
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The Property/Casualty Insurance Industry

by
Coopers & Lybrand

September 1998

Research Papers Prepared for the Task Force on the Future
of the Canadian Financial Services Sector



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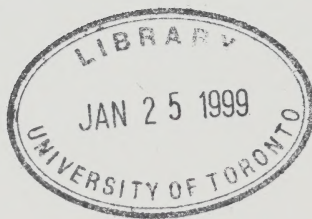
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**The views expressed in these research papers
are those of the authors and do not necessarily reflect
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Overview

The property and casualty (P/C) insurance industry is quite different from other types of financial services business. Unlike banks and life insurers, P/C insurers are not in the financial intermediation business. They are in the business of intermediating risk rather than financial assets, and as a part of this function they must take on a good deal of business risk themselves. This impacts the business in a number of fundamental ways, including investment strategy and capital allocation.

As with other sectors of the financial service industry, current key issues arise.

Executive Summary: Key Features of the Property/Casualty Insurance Business

The Property/Casualty (P/C) insurance industry differs in a number of fundamental respects from other sectors of the financial services business. These are dealt with in greater detail elsewhere in this paper, but some of the most important of these differences are summarized below:

- **Fundamental Concept: Spreading and Absorbing Risk**

Unlike most other financial "pillars", P/C insurers are not in the intermediation business, they are in the business of spreading risk and absorbing risk.

- **Types of Risks Covered**

Typical risks covered by P/C insurers include the risk of loss or damage to property (e.g. a typical homeowner's policy), the risk of being held liable for causing loss or damage to others (e.g. the liability portion of an automobile insurance policy) and other more specialized risk situations.

- **Two Aspects to the Business: Underwriting and Investing**

P/C insurers are really involved in two businesses: (1) insurance, where the main functions are the assessment of risk, the setting of appropriate premiums to compensate for the risks being assumed and the paying of claims; and (2) investing, where premiums must be invested pending the need for payment of claims and other purposes. Later in this paper we examine the interplay between these two facets of the business.

- **Reinsurance**

To help with the spreading of risk, P/C insurers "reinsure" part of their business. Reinsurers are specialized insurance companies that deal only with other insurance companies, not accepting business directly from the public.

- **Small Asset Base**

For reasons explained in Section 2, P/C insurance tends not to generate the large asset base that characterizes many other financial institutions. The average P/C insurer in Canada has assets of only \$246 million.

- **Relatively High Levels of Risk**

There are several important implications arising from P/C insurers' activities in spreading and absorbing risk:

- **High Level of Capital Compared to Other Financial Institutions:** Capital provides the cushion to absorb unforeseen losses, enabling them to be contained

within the firm rather than having to be passed along to the public through corporate insolvency.

- **Conservative Investments:** Funds must be invested in quite a conservative manner because of the high level of business risk being assumed through the insurance function.
- **Liquidity:** When a large claim is incurred, the insurer must be able to get funds into the hands of the policyholder without undue delay.

- **Product Pricing**

Unlike most other businesses, P/C insurers don't know the ultimate cost of the product they are selling until long after it has been sold. Accordingly, pricing must be based on actuarial predictions as to the expected frequency and severity of losses. In practice, this factor also gives rise to a certain "elasticity" in pricing – for large commercial risks there may be a tendency to bid down the price in order to get the account, hoping against hope that no major loss will occur while your company is carrying the risk, or that the premium can gradually be increased in future years.

- **Consumer Image**

Although the "consumer image" situation for P/C insurers may be no worse than for other financial institutions such as banks, some have suggested that the nature of the P/C insurance business is such that P/C insurers will face a particular challenge in this area.

- **Cyclicalities**

When one looks at the financial performance of the industry over any period of five years or more, one cannot help but be struck by the high degree of cyclicalities in the results.

- **Degree of Foreign Ownership and Foreign Business Activity**

Unlike the life insurance industry, and obviously the banking industry, a large percentage of the total business is conducted by companies that are foreign controlled.

- **Regulatory Environment**

The regulatory framework for P/C insurers parallels that of life insurers, and since the 1992 revisions to federal financial services legislation, the approach for both types of insurers has been made reasonably consistent with that for deposit taking institutions. The details of the regulation obviously differ from that applicable to other financial institutions to the extent dictated by underlying differences in the nature of the businesses.

Recently some industry members have been expressing a view that the degree of regulatory consistency with other financial institutions is actually somewhat inappropriate, having in mind that, as stated above, P/C insurers are not in the intermediation business. Of course the

other side of the coin is that regardless of whether or not the companies are intermediaries, they *are* in the business of taking money from the public in return for what may turn out to be an extremely important future obligation: the payment of a claim. Thus from a public policy perspective the crucial variable may be risk of loss rather than the underlying nature of the transactions within the institution. The issue may be clarified through a project currently being carried out by The Insurance Bureau of Canada and OSFI, examining P/C insurance supervisory models in other jurisdictions. At the present time, however, there is no evidence that the current regulatory model is inappropriate for P/C insurers.

Note on Charts and Statistics

Data with respect to federal companies is conveniently available and for this reason many insurance publications and research papers represent federal company data as "the industry". As will be shown in more detail below, federal companies actually account for 76% of the total premium volume in Canada, with the remainder of the business originating with provincially incorporated companies. Comprehensive data on all provincial companies is not readily available and for that reason we will generally follow the convention of using federal companies as a proxy for the entire industry. In some cases provincial data cannot be omitted without loss of significant information and in these cases we rely on the TRAC data base, which includes information on most, but not all, provincial companies. Companies that are not included in the TRAC data base are not considered to be significant relative to figures for the industry as a whole.

Business and Structure of the Industry

Nature and Composition of Business

The Property/Casualty insurance industry plays a vital role in the economy by spreading and absorbing risk, converting a small chance of disastrous loss (a ruinous claim) to the certainty of a relatively small loss (the premium). In most enterprises, and in daily living, the certainty of a small loss is greatly preferable to a slight chance that one could lose everything through the vagaries of fire, weather and other contingencies. Without this ability to replace the unknown with the known, it is almost certain that our economy could never have developed to its present size, sophistication and complexity: lenders and shareholders would continuously be exposed to the possibility that all could be lost through some catastrophic event, doubtless constraining the investment of capital.

The mechanism of insurance is simple enough. For example, we know that the risk of fire on a given house is very small. But we may also know that in a community with a thousand homes it is almost certain that at least two will be destroyed by fire in a particular year. If each home is worth \$100,000 then we expect the losses in a year to total about \$200,000. Since we have a thousand homes to share the risk, if we receive a premium of \$200 for each home we will have collected enough to pay for the two total losses that are expected to occur. Of course our simple insurance company will require some money to cover the costs of marketing and distributing its product and to pay for overhead and administration, so in fact the premium will have to be somewhat higher than \$200, but the principle is the same. A traditional saying in the industry is that "the premiums of the many shall pay for the losses of the few".

The volatile nature of the P/C insurance business is also illustrated by the foregoing example. We can see that if there happen to be three total losses the insurer will in fact have lost \$100,000. Or if there is a serious windstorm or earthquake, the insurer itself could be financially crippled and unable to pay its claims.

To protect against this eventuality the insurer maintains two lines of defence. First of all it shares its risks with reinsurers: insurers that specialize in the assumption of risks from other insurers. Reinsurers tend to be extremely large with operations on an international basis. By broadly diversifying their operations they reduce their exposure to loss. In terms of the above example, the chance of a catastrophic loss, relative to the amount of premiums collected, is much smaller if you are insuring a portion of one thousand neighbourhoods in ten countries than if you are insuring one thousand homes in one neighbourhood.

Reinsurance can be structured so that the reinsurer will share in a portion of every loss, or so that the reinsurer will absorb all losses once they exceed a certain level in the aggregate or once they exceed a certain level from one event such as a storm or earthquake, and in other ways as well. Reinsurance can also be applied to an entire portfolio of business or to a particular property such as an off-shore oil rig or major building. Insurers usually structure their reinsurance so that coverage is spread amongst a number of reinsurers. The combinations are almost endless and an

important aspect of an insurer's expertise is the ability to structure its reinsurance arrangements so as to represent an appropriate balance of protection and cost.

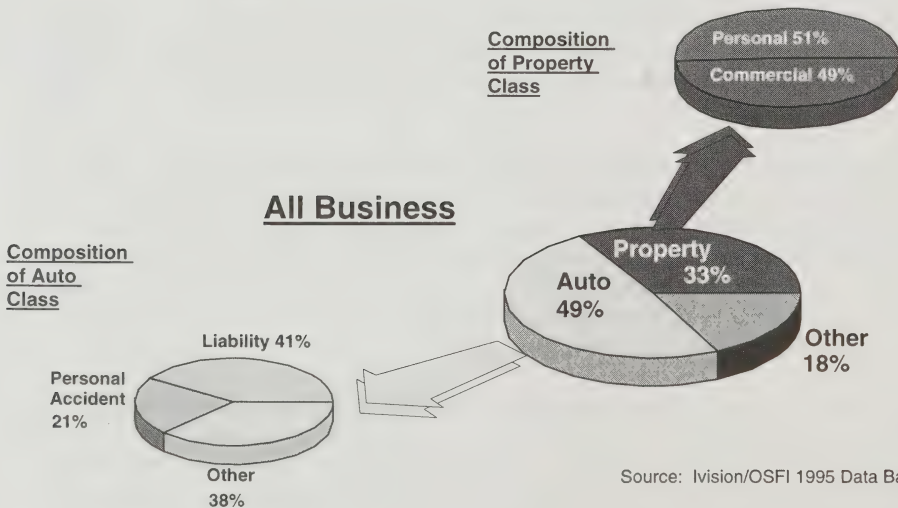
Reinsurance companies are incorporated and regulated in the same way as insurers, although they are generally restricted by licence condition to dealing with insurance companies rather than directly with the public.

Another practice followed by P/C insurers to help ensure that they will be able to pay all future claims, is to maintain relatively higher levels of capital (i.e. excess of assets over liabilities) than other types of financial institutions where future financial obligations can be predicted with greater certainty. This will be discussed in more detail below.

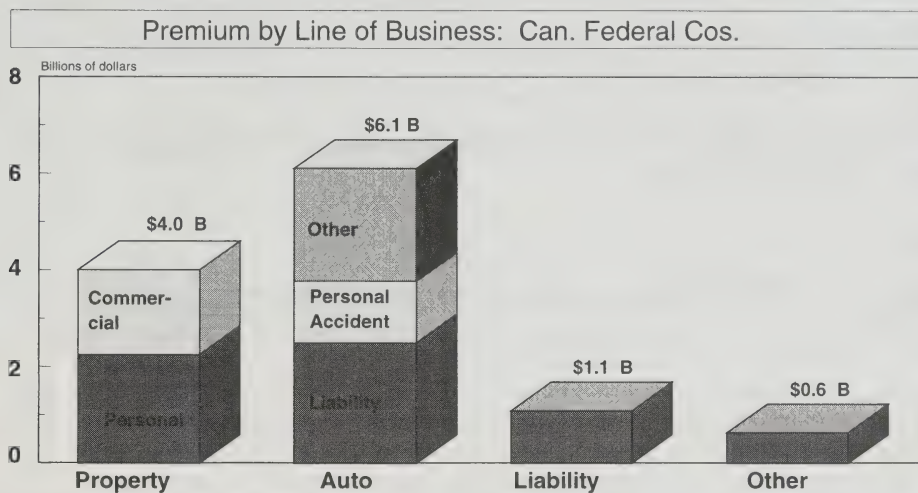
Even with the benefit of reinsurance and a strong capital position, the unpredictability of P/C insurer cash flows means that quality and liquidity of investments will also be important factors in the on-going financial health of a P/C insurer. Again these aspects will be covered in greater detail below.

The main lines of risks covered are Property Insurance, Automobile Insurance and Other Lines. The chart below illustrates the relative sales in each line. As can be seen, Auto comprises about one half the total volume, with Property accounting for another one third. Property is split almost evenly between Commercial Property (i.e. property insured by businesses) and Personal Property (i.e. property owned by individuals). The Auto business is comprised of the Liability portion of the auto policies as well as the property and personal injury portions.

Lines of Business: P/C Insurers in Can.



The chart below shows the total premium income in each main line for federally incorporated companies in 1995:



Source: Ivision/OSFI 1995 Data Base

The above charts also bring to mind the fact that to a considerable degree, P/C insurance has been a commodity type product. One can see why this would tend to be the case: for contracts as crucial as fire insurance and automobile insurance, it could be very confusing for consumers if the specifics of coverage, exclusions and so on, varied from company to company. To prevent this kind of confusion from arising, the insurance act of each province sets out "statutory conditions", detailing the wording of basic coverage that has to be provided in respect of auto and fire insurance policies. The provincial insurance acts also contain other detailed requirements with regard to coverage. In Ontario the entire automobile policy and related forms are contained in regulations, so there can be no deviation from the prescribed wording. Also, there has not been a great deal of choice in distribution methods, with about 80% of the total being through brokers and most of the rest through company employed sales representatives. In short, for the main lines of business there has been little differentiation between companies other than on the basis of price.

The previous charts also highlight the fact that about half of all P/C insurance falls within the auto line. In three Canadian provinces, British Columbia, Saskatchewan and Manitoba, the provincial governments have taken over the business of auto insurance. In Ontario the provincial government has designed the product and requires the private sector to sell it. This intervention of governments in what was previously entirely a private enterprise undertaking has greatly reduced the income of P/C insurers. While this is a highly significant result, there don't appear to have been many other major implications for the private sector market. Some insurers that specialized in auto insurance pulled out of BC, Saskatchewan or Manitoba when public auto was initiated, but other full line writers continued to sell homeowners' and other coverages in these

markets. In Ontario, some insurers that did not write a lot of auto business probably stopped writing auto rather than deal with the complexities of a succession of three new auto insurance coverages that have made their appearance in the province since 1990. For the most part, however, the companies underwriting auto insurance in Ontario have continued to do so, despite the lack of control over the product, expenses of having to modify systems, re-train staff and so on, to deal with changes in the product.

The Property/Casualty Insurance Industry in the Context of the Canadian Financial Sector

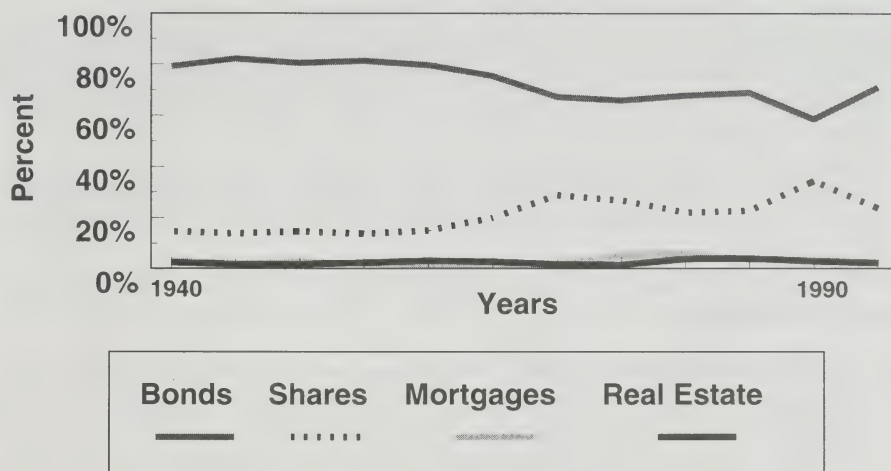
Asset Base

As can be seen from Exhibit 1, and the data in Table 1 following, the P/C industry has a relatively insignificant share of total Canadian financial system assets. Over the period from 1992 to the end of 1996, bank assets increased from 62% of the total to 70% of the total, a significant increase in only four years, mostly at the expense of the trust industry, where the share of system assets dropped from 12% in 1992 to 6% only four years later. Property/casualty industry assets remained at 3% of the total over the entire period. Each of Canada's major chartered banks has an asset base that exceeds the asset base for the total Property/Casualty insurance industry in Canada. The life industry had total assets of \$171 billion at the end of 1996, or about four times the asset base of the P/C industry.

The asset size of the P/C industry is small relative to that of other financial pillars because P/C insurance premiums cover a short time horizon (usually one year or less). From those premium payments the period's claims and expenses must be paid – thus the business is essentially "cash in, cash out". In recent years the duration of the industry's liabilities has extended somewhat as a result of the increasing significance of liability insurance. In this class of business, the payment of claims is often dependent on the conclusion of lengthy legal proceedings, so that funds remain with the insurers for longer periods of time. However, as we saw from the chart on page 8, liability business only represents about 30% of total business and for most claims, settlement will be within five years or less. By contrast, in the Life insurance industry, premiums will typically be on the books for very long periods of time, literally a lifetime, before payments will have to be made. The astonishing power of compound interest over such long periods of time is well known, and the asset base of these companies grows accordingly. For P/C insurers it is mainly the shareholders' funds that are available for longer term investment.

From the chart below we see an interesting trend over the long term when we look at P/C industry investment practices. As expected, portfolios have always been quite conservative, but we do note a gradually rising proportion of common and preferred share investments, levelling off around 1970 at about 30% of total investments. From that point on we see a slight decline in share investments, but with renewed growth and peaking again around the end of the 1980's. Bond investments form a virtual mirror image of the share investments, so it is clear that together, bonds and stocks account for by far the greatest proportion of P/C insurer investments.

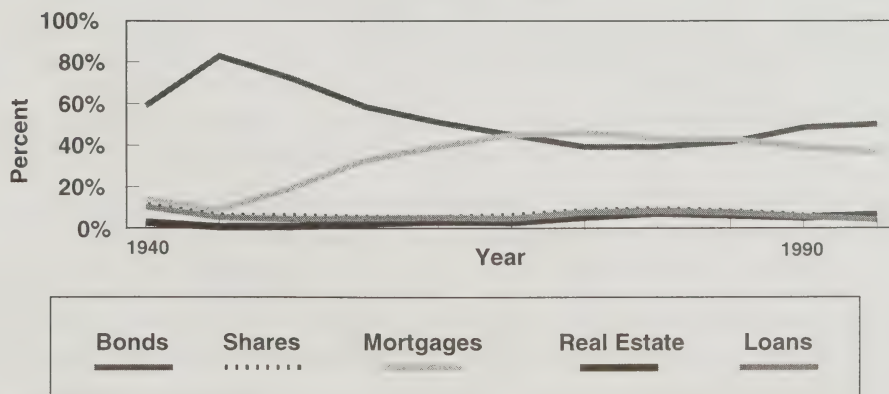
Canadian Property/Casualty Insurers 50 Year Investment Trend



Source: Reports of the Federal Superintendent of Insurance

Again just for purposes of comparison, we include below the fifty year investment history for federal life insurers on the same basis as for P/C insurers:

Canadian Life Insurers 50 Year Investment Trend



Source: Reports of the Federal Superintendent of Insurance

We can see that, from a position that started out with much the same composition as the P/C industry, i.e. essentially bonds and stocks, the life industry has moved over time to have a significant portion of its investments in real estate and mortgages, reflecting the longer term nature of the underlying liabilities.

While the life industry is much larger than the P/C in terms of assets, in terms of cash flow the two are much more comparable: the asset base of the life insurance industry is about four times the size of the P/C industry asset base, whereas the premium income for life and health insurance is about equal to premium income for the P/C sector.

Exhibit 2 more clearly shows the allocation of system assets at year end 1996. The asset base of the P/C insurance industry at the end of 1996 amounted to \$43 billion, or 3% of total system assets of \$1.4 trillion.

System Capitalization

When we look at the allocation of system capital between the various sectors of the financial services industry a different picture emerges. As mentioned earlier, deposit taking institutions (DTIs), life insurers and most other institutions can operate with higher levels of financial leverage (i.e. lower levels of capital relative to liabilities) than is feasible for the P/C insurance industry, with its more uncertain pattern of future cash flow requirements.

The allocation of capital can be clearly seen from Exhibit 3. In absolute terms, the P/C industry was capitalized to a level of \$13.4 billion at year end 1996, compared to \$27.5 billion for lifecos and \$45.9 billion for banks. It is interesting to note that while life insurers and P/C insurers together owned only 15% of financial industry assets compared to 70% for the banks, the life and P/C insurance industries together hold almost as much capital as do the banks: 41% for the insurers versus 46% for the banks.

When we look at actual financial leverage (i.e. the amount of capital being held relative to each dollar of liability to depositors, policyholders or other creditors) for each of the financial sectors, the relatively high levels of capital backing required for the P/C business become evident. This is illustrated in Exhibit 4, from which we can see that the average leverage ratio in the P/C industry has hovered between 42% and 46% over the period (see also Table 1 for actual figures), while the ratio has been around 5% for banks and 19% for life insurers.

This is a clear reflection of the underlying financial risk attributable to each type of business. If market forces (and regulatory requirements) are able to perfectly adjust for risk, then we should expect that the differing levels of capital to liabilities should offset the differing levels of financial risk underlying each type of business. The P/C insurer must maintain a level of capital relative to liabilities about 9 times greater than that of a bank, and with these relative levels of capital, the probability of insolvency in each type of institution should be roughly equal, at least from a theoretical perspective.

Financial Structure of the Industry

Revenue Base and Sources of Revenue

As mentioned above, in contrast with the picture one gets when looking at the asset base of the industry, total industry revenue is quite substantial, amounting to \$21.6 billion in 1995. This was comprised of premiums of \$19.4 billion and investment income of \$2.2 billion (WinTRAC '95 Data Base).

Exhibit 5 illustrates the sources of revenue for P/C insurers in Canada. As is clear from the graph, premium income dwarfs investment income as a source of revenue for the industry, a direct result of the industry's relatively small asset base, noted above.

By contrast, in Exhibit 5A, we see corresponding figures for the Canadian life insurance industry. Clearly in this case, investment income is a much more significant item than for P/C insurance.

The degree of fragmentation in the marketplace is also illustrated by Exhibit 5, which shows the distribution of premium volume for federal P/C insurers. From this graph we can see that while there are a few large companies, there are also a quite a large number of much smaller companies. The table below shows the 10 largest companies along with their premium volume for 1995.

Top Ten	Premium Volume	Market Share
Royal Insurance Company Of Canada	1,014,124	6.43
General Accident Assurance Of Canada	940,361	5.96
Zurich Insurance Company	917,719	5.82
Co-operators General Insurance Company	829,801	5.26
Wawanesa Mutual Insurance Company	748,525	4.75
Dominion of Canada General Ins. Company	568,522	3.61
State Farm Mutual Automobile Insurance	564,930	3.58
Liberty Mutual Insurance Company	538,597	3.42
Economical Mutual Insurance Company	536,816	3.41
Guardian Insurance Company of Canada	515,461	3.27

1,000's of dollars

Source: WinTRAC '95

Distribution of P/C Sector Assets: Between Companies and Internationally

We have already indicated that the P/C industry has total assets of about \$43 billion and that there are about 246 active companies competing for business, so we are looking at an industry where the average company has total assets of only \$175 million.

In Exhibit 6 we have graphed the distribution of assets across companies to give an indication of the range in company sizes. As can be seen, the range is very great indeed, with only 5 companies having assets in excess of \$1 billion. Note also that the average Canadian incorporated company has assets of \$246 million, somewhat larger than the average size for *all* P/C insurers of \$175 million referred to above. The table on Exhibit 6 sets out the asset base for each of the ten largest P/C insurers.

Note also that virtually all of the business is within Canada, with only a few companies showing any significant amount of assets outside the country.

For the sake of comparison, Exhibit 6A shows the same data for Canadian incorporated life insurers. Not only do we see a much larger average asset base (\$3.9 billion compared to only \$246 million for P/C), but we also see that the Canadian life industry is very much of an international player. For example, the largest company by assets, Sun Life of Canada, has total assets of \$42.3 billion (approximately equal to the entire P/C industry), of which \$26.6 billion, or 63%, is outside of Canada. Other large life companies have similar ratios. In fact, for the Canadian life industry as a whole, 53.8% of assets are outside of Canada.

One might reasonably wonder why there is such a significant difference between the international operations of Canadian life companies and P/C companies. We believe the main cause relates to the difference in foreign ownership, which will be discussed in more detail below. But as suggested by the note on Exhibits 6 and 6A, Canadian ownership is a feature of the Canadian life industry, whereas the P/C business tends to be dominated by foreign owned insurers. Given this fact, it would be fairly natural that international P/C insurance groups that wish to establish insurance businesses in other countries, would expand through the parent company or specialized international subsidiaries rather than using their Canadian subsidiary for this purpose.

Concentration

The business has traditionally been considered to be highly fragmented. As mentioned above, at the end of 1995 there were some 246 P/C insurers competing for business. The main company categories are set out below (1996 figures not yet available):

Type of Insurer	Number of Entities	Percent by Type of Entity	Total Premium Volume	Percent of Total Business
Canadian Federal	83	34%	\$11.8 billion	61%
Canadian Provincial	59	24%	\$3.7 billion	19%
Foreign Branch	104	42%	\$3.9 billion	20%
Total	246	100%	\$19.4 billion	100%

Source: WinTRAC '95

Compared to the deposit taking sector, and relative to the size of the market, this is a large number of companies. It is also approximately 1.5 times the number of life insurance companies that are active in Canada. With 246 companies competing for a total premium volume of \$19.4 billion, we have an average annual premium volume of only \$79 million per company, which is small for a financial institution. Perhaps surprisingly, in the United States, with 3,358 companies and total premiums of US\$268 billion, the average company size is almost identical to this, at US\$80 million (National Association of Insurance Commissioners Information Centre).

Incidentally, we can see from the table above that 76% of the total P/C business by premium volume is written through federally regulated insurers (Canadian incorporated companies plus foreign branches). In Québec, two Québec incorporated companies, Boreal Insurance and Assurances Generales Des Caisses Desjardins Inc., together have an 18.9% market share in that province (WinTRAC '95). This is much higher than the market share held by provincially incorporated insurers in other provinces (excluding, of course, the government auto plans in British Columbia, Saskatchewan and Manitoba). The large number of relatively small companies in a marketplace the size of Canada no doubt helps to ensure a competitive environment for premiums, to the benefit of consumers.

Another way of tracking the degree of concentration over time is to measure the percent of total premium income accounted for by the ten largest companies in the industry. We can see from Exhibit 7 that the degree of fragmentation has been gradually decreasing over the last fifteen years. By the end of 1996, with some fairly large amalgamations over past year or two, the top ten companies together write 45% of total industry premiums, compared with just over 30% in 1980.

Degree of Foreign Ownership and Foreign Business Activity

Unlike the life insurance and banking industries, a large percentage of the total property/casualty business is conducted by companies that are foreign owned. As we saw from the Table on Exhibit 6, at the end of 1995, six of the ten largest P/C insurers were foreign controlled. For

companies. And in fact, the percentage of Canadian controlled business has been remarkably stable at about that level for many years. Reference to the Report of the Superintendent of Insurance of Canada for the year 1979 indicates that Canadian controlled companies accounted for 25% of the business in that year. Given the high degree of foreign ownership, the industry tends to confine itself to the Canadian marketplace. This is because foreign shareholders will usually use international entities or the parent company as a vehicle for entry into foreign markets, rather than a Canadian incorporated subsidiary company.

By comparison, as shown in the Table on Exhibit 6A, only one of the ten largest life insurers is foreign controlled. (One could argue that mutual companies such as Sun Life, which have more than 50% of their business outside of Canada are also foreign controlled. We do not adopt that notion here because the "mind and direction" of these companies resides in Canada where the executive offices are located.) While for the P/C business the tradition of foreign control is firmly established, for the life insurance industry the situation is exactly the opposite, with more than 75% of the market accounted for by Canadian controlled companies.

The writer was once advised by a then federal Superintendent of Insurance, that the reason for the markedly different foreign ownership situations vis-à-vis life and non-life, could be found in historical events. He said the difference in ownership characteristics started to manifest itself shortly after Confederation, when the Canadian government first mandated foreign insurers (i.e. branches) to cover all Canadian insurance liabilities with Canadian assets, vested in trust under the control of the Superintendent. Faced with this, most branches of British life companies, which then had a dominant position in the Canadian market, decided they could not live with the new rule (possibly the fact that it was coming from an upstart former colony had something to do with their reaction). As a consequence, many of them pulled out of Canada. This left the Canadian life companies with what amounted to a monopoly. For many years the Canadian life companies grew and prospered without much competitive pressure from foreign entities. This may have been similar to what would have occurred if the government had imposed high tariffs or other protectionist measures to shelter its home grown industry. In any case, by the time foreign life companies attempted to expand back into the Canadian market some forty or fifty years later, Canadian companies such as Sun, London, Mutual, Manufacturers, Canada and Confederation, had established such prominent positions that they could not be dislodged.

On the P/C side, when the new deposit requirements were introduced, the British and other foreign property/casualty branches tended to be much less upset than their life insurance counterparts, and most opted to remain here. Accordingly they continued to dominate the industry and Canadian owned P/C insurers never experienced the incubation period enjoyed by Canadian controlled life insurers.

It is difficult to say to what extent these events may actually have influenced our marketplace. However, the explanation certainly seems to be consistent with what we can observe as the current reality.

Cyclicalities of Results

The property/casualty industry is well known for its "boom and bust" underwriting cycles. The grey bars in Exhibit 8 show the industry's annual underwriting result over the 20 year period from 1975 to 1995. As can be seen, the result is much more often "bust" than "boom", with the last underwriting profit having occurred in 1978. Even so, there is a distinct cyclicalities to the results, with troughs having occurred in 1981, 1985, 1989 and 1992.

As mentioned in Section 2 of this paper, the P/C business actually consists of two businesses: the underwriting of insurance risks and the investment of premiums pending the payment of claims and expenses.

The black bars on the graph show industry investment income. As can be seen, in all cases the investment income bars are of greater magnitude than the bars representing underwriting losses. Exhibit 8A shows the income figure derived by netting the investment income and underwriting losses, the resulting figure being very close to net income before tax.

Until 1978, property/casualty insurers in Canada did not follow Generally Accepted Accounting Policies, and the reporting thrust was very much on the underwriting side of the business. Talk of "profit" and "loss" always meant underwriting profit or loss, with scant mention of investment results at all. After 1978 the reporting format changed to clearly indicate the two segments of the business, with operating results for each segment being given equal prominence, before being combined to produce one "net income" figure. Despite the fact that this change took place almost twenty years ago, there remains a certain focus on the underwriting result, and to this day it is not unusual to hear industry executives speaking to the media and others about "losses", by which they mean underwriting losses rather than actual net income losses.

Profitability

Exhibit 9 shows after tax net income for the five years ending in 1995. The most profitable year was 1995 when the industry (federal companies) recorded a total profit of \$747 million. As most people are aware, this *industry* profit is less than the annual profit recently recorded by *each* of Canada's largest banks.

Exhibit 9A compares these net income figures to total shareholders' equity, so we can see the actual return on equity. Again the best year was 1995, with an industry ROE of 11.1%. The arithmetical average over the five year period was only 6.6%. This is not a very attractive return, being about equal to the risk free rate on government bonds over the same period. As we have mentioned, though, the P/C business is far from risk free.

This raises an important issue as to the availability of future capital. If shareholders cannot get sufficient return to compensate them for risk, they will find alternative places to invest their funds. Having in mind the significant capital needs that accompany the risk spreading and absorption functions, and the importance of those functions to the entire economy, the possible implications for the industry, and therefore our future economy, are obvious.

What we see in Exhibit 9B, however, is that while the average industry return has been low, and in fact too low to be sustainable, the average masks a broad range of actual results. When companies are sorted in descending order by ROE, and then graphed, the resulting distribution shows that some companies that are making very good returns indeed. Some of the highest return companies are very small (Clare Mutual), or highly specialized (Progressive Casualty which writes sub-standard auto policies, Great Lakes Re which only accepts reinsurance premiums). This is not uniformly the case, however, as Chubb and Cigna are relatively large, having 1995 direct premium income of \$250 million and \$121 million respectively. Even more significantly, we see that Royal Insurance Company of Canada, the largest multi-line company in 1995 (measured by direct premiums written), generated a return of 24% to its shareholders.

From Royal and other companies we can draw the conclusion that a well run P/C insurer offering a wide range of products to consumers across Canada, is capable of generating attractive returns on equity. The fact that many insurers do not fall into this category suggests that over time these less successful companies will not continue to be supported by their shareholders and consolidation will occur. Part of the consolidation will be gradual, as some insurers lose business to their more successful competitors, and some consolidation will occur in "chunks" as successful insurers engage in acquisitions. Indeed, over the last several years Royal has acquired the Canadian business of the Sun Alliance Insurance Company and Unifund, a much smaller insurer that was had the fourth highest ROE in 1995 at 29%.

Regulation of the Property/Casualty Insurance Industry

The regulatory framework for P/C insurers parallels that of life insurers, and since the 1992 revisions to federal financial services legislation, the approach for both types of insurers has been made reasonably consistent with that for deposit taking institutions. The details of the regulation obviously differ from that applicable to other financial institutions to the extent dictated by underlying differences in the nature of the businesses.

A difference from banking regulation is that for both the Life and P/C sectors, branch operations of foreign insurers have traditionally been permitted. The regulation of branches parallels the regulation of Canadian incorporated companies to the extent possible, including requirements for independent audit, actuarial valuation and minimum "capital" requirements (of course a branch does not actually have capital as it is not an incorporated entity). In this latter connection, one of the fundamental principles of foreign insurance branch regulation has been that branches must maintain in Canada, in trust under the control of the Superintendent of Financial Institutions, assets in an amount that at a minimum would approximately equal that required by a Canadian insurer in accordance with Canadian minimum capital requirements. The objective is to ensure that in the event of financial problems with the parent company there will be sufficient assets in Canada to discharge liabilities to all Canadian claimants. Over the years this has worked well to protect Canadian interests.

Our understanding is that under the new proposal that will authorize foreign banks to establish Canadian branches, it is only the deemed capital pertaining to the Canadian business that will have to be vested in trust. One might question this requirement, in that if there are financial

problems with the parent company, the deemed capital in the branch will be small relative to outstanding Canadian liabilities, and thus of little assistance in taking care of Canadian creditors. Consequently, a requirement to vest in trust the deemed capital of a foreign branch bank would seem to give rise to added administrative expense and possibly increased transaction costs for Canadian customers – the very complaints made by foreign insurance company branches about the vesting in trust system – but without providing any particular benefit in terms of solvency protection for Canadians.

Unlike both banks and life insurers, there is no risk-based capital requirement for P/C insurers, at least in the sense suggested by the Bank for International Settlements where asset risk is formally recognized in the determination of capital requirements.

On the other hand, the minimum capital test for P/C insurers is risk-based in the sense of reflecting, at least in a rudimentary way, the underlying business risk of the insurer. This occurs because the minimum capital requirement is based on three separate calculations, with the actual requirement dependent on the calculation that gives rise to the highest result. Without getting into the actual details, the first calculation is approximately equal to 15% of unearned premiums and outstanding claims, the second is based on 15% of gross premium volume in the preceding 12 months and the third is based on 22% of average gross claims incurred over the 3 preceding years. In each case an adjustment is made for reinsurance of up to 50% of the gross margin requirement. What happens is that if an insurer begins to rapidly expand its business (a definite sign of increasing risk), then the premium volume calculation will generally require more capital than either of the other tests. On the other hand, if claims have been abnormally high (again a sign of potentially increasing risk), then the claims based calculation will generally give rise to a higher capital requirement than would occur under either of the other two calculations. When neither growth nor claims experience have been a particular problem, the test based on 15% of outstanding claims and unearned premiums will normally be the determining factor in establishing the capital requirement. This approach has worked well over the years in terms of providing OSFI with a reasonable amount of "early warning" – time for working with management of the company to resolve problems before they become insurmountable.

There is currently some discussion about incorporating an asset risk component into the test, to more closely parallel the approach for banks and life insurers. The general consensus in the industry seems to be that such a change should not be made if the cost is a vast increase in complexity of the test calculations (the life insurance test is highly complex, as is the risk-based test for P/C insurers that has been approved for use in the United States). Those taking this position point out that, given the generally conservative investment portfolios of P/C insurers, asset risk has not been a significant problem. Indeed, in modern memory no Canadian P/C insurer has folded as a result of investment problems.

Companies can be incorporated either federally or provincially but federal incorporation has been the usual route for companies desiring to carry on business in more than one province.

The jurisdiction of incorporation is responsible for solvency regulation, which as indicated tends to be federal for the more substantive companies. However, the provinces not only oversee the solvency regulation for the companies they incorporate, but they are responsible for the

marketplace regulation of all insurers. Thus a federal insurer wishing to write business in Ontario and British Columbia, for example, will need to obtain the appropriate licences from the provincial insurance regulators in those two provinces, as well as meeting all the federal requirements. Unfortunately, licensing and related areas are not particularly well harmonized between the federal and various provincial governments, with the result that there is a fair amount of overlap, duplication and, for the insurance industry, general frustration regarding this part of the regulatory process. It is hoped by industry players that an increasing emphasis on cost reduction by governments will lead to a considerable improvement in the harmonization of licensing and other regulatory processes between all governments in Canada.

Key Public Policy Issues Involving the Property/Casualty Insurance Industry

Earthquake

Although the possibility of a major earthquake has always been known to pose serious risks for the P/C insurance industry, and indeed for the country, it is only over the last five or six years that the topic has received much serious study. The insurance industry has tended to ignore the possibility of serious earthquake losses, and has not traditionally priced for such risks, even though, as will be explained further below, losses resulting from fire following an earthquake are included in standard property policies.

The reinsurance industry took the initiative in 1992 with the publication by Munich Reinsurance Company of Canada of its research paper, "Earthquake: A Study of the Economic Impact of a Severe Earthquake in the Lower Mainland of British Columbia". In 1993 the Insurance Bureau of Canada, the P/C industry trade association, followed up by naming the risk of earthquake in a major urban centre as a priority policy issue for the industry to address.

A recent publication of the IBC ("Canadian Earthquake Exposure: A Proposal for Strengthening Industry Discipline", February 1997) summed up the situation as follows:

"Canada is an earthquake-prone country. In 1995, more than one thousand minor earthquakes were recorded in Canada. Canada is also prone to major earthquakes. To date, these occurred in remote areas, or many years ago. Thanks to this good fortune, we have not yet experienced a major loss of life and property due to an earthquake. However, the scientific evidence is overwhelming that a major earthquake will eventually strike an urban centre in Canada. Some of the most seismically active areas in Canada are now heavily populated. This includes south western British Columbia and the St. Lawrence Valley. Communities like Montreal, Vancouver, Victoria and Quebec City are home to roughly one-third of the Canadian population. They generate a third of Canadian national income."

The insurance industry is used to dealing with catastrophic losses arising from natural disasters. Over the last few years floods and windstorms have given rise to hundreds of millions of dollars of claims in Canada, which have been paid by the insurance industry as part of their on-going insurance business. However, the losses that could arise in the event of a significant earthquake in an urban centre dwarf the losses that have been incurred as a result of other disasters.

The Munich Re study focused on the possibility of an earthquake of magnitude 6.5 occurring at longitude 123 W, latitude 49N at a depth of 10 km. i.e. the Vancouver area. This type of quake is estimated to have a 10% chance of occurring within a 50 year period, or of occurring once in every 500 years.

The main findings of the study:

- Total expected economic loss in the range \$14.3 billion to \$32.1 billion

- Total insured loss in the range \$6.7 billion to \$12.7 billion.

In 1994 the IBC commissioned an independent study which came up with estimated losses for south western British Columbia which were in the same neighbourhood as arrived at by Munich Re. The IBC study broadened the research to include the St. Lawrence Valley region of Quebec. For the St. Lawrence Valley region the probable maximum loss from a major quake was estimated to be \$3.8 billion, compared to \$9.7 billion for British Columbia.

The key issues arising from these findings are as follows:

- Does the industry have the financial capacity to pay out claims in the range of \$6.7 billion to \$12.7 billion?
- If the industry does not have sufficient financial capacity to pay the claims, how can the deficiency be remedied? and
- Given the extraordinary difference between the total estimated economic loss and the amount of insured loss, does the public and the government realize the extent to which they are exposed to loss from a major earthquake?

There is no evidence that companies have attempted to avoid earthquake risk by incorporating subsidiaries to do business in earthquake prone areas or by otherwise limiting coverage in these areas.

Financial Capacity

Dealing with the first issue, financial capacity, we have seen earlier in this paper that the total equity base of all federally incorporated insurers is \$13.5 billion. However, this amount is required to provide protection against all the risks these companies insure. In the 1994 study, "Canadian Earthquake Exposure and the General Insurance Industry, Financial Impact Analysis" the IBC concluded as follows:

"The general insurance industry in Canada does not, at present, have the capacity to pay the claims that would result from a major earthquake in an urban centre, such as the Greater Vancouver Area or the areas around Montreal and Quebec City, while maintaining insurance protection for consumers in these and other parts of the country. In particular, claims would exceed industry capacity by \$7.4 billion in British Columbia and \$1.5 billion in Quebec. Insolvencies would arise in both jurisdictions. One quarter of firms writing property insurance in B.C. and one eighth of firms writing property insurance in Quebec are expected to be unable to meet earthquake claims demands. All types of firms appear to be vulnerable to an earthquake-related insolvency".

Resolving the Issue of Capacity

The IBC, along with regulators and other interested parties, has been working to address the issue of this capacity shortfall. The key areas of attack proposed by the IBC can be summarized as follows:

1. Loss Mitigation: Loss exposure can be reduced, both through strengthening the building code in earthquake prone areas and by taking other steps to encourage loss containment measures in terms of impeding the spread of fire, anchoring appliances and so on. Insurers in the United States estimate that 25% of total insured losses from a recent U.S. catastrophe could have been averted if building codes had been properly enforced. However, in the short run it is not practical to expect that past building code problems can be corrected, and in any case, even a reduction of 25% in the amount of earthquake related claims would not eliminate the capacity problems facing the industry and the public.

2. Changes in the Pattern of Compensation: There are two types of coverage relating to earthquake losses. The first is protection against damage caused by earthquake shaking. This is typically purchased by means of a special endorsement to standard property coverage. The second is protection against fire resulting from earthquake. As mentioned above, the standard property policy typically covers loss from all fires, including fires resulting from an earthquake.

We therefore have an anomaly in that a serious earthquake would immediately give rise to major differences as to the extent of coverage provided under individual policies. The occurrence or non-occurrence of "fire following" is largely capricious, depending on prevailing winds and many other factors that are difficult to predict. Is it fair that for Family A and Family B, both of whom possess standard homeowners' policies, Family A whose home is destroyed by shaking may have no coverage whereas Family B whose home is destroyed as a result of fire following, should have complete coverage? This is especially difficult to justify when one realizes that premiums paid under both policies are identical.

In addition to the issue of equity, the industry is of the view that the inclusion of fire following coverage in the standard policy makes it very difficult to price earthquake coverage in a way that is clear to the consumer and which sends a signal as to the risk involved.

Therefore the industry believes that one step in resolving the earthquake issue would be for companies to have the ability under provincial law to sell a property policy which excludes earthquake coverage, but which could be supplemented by an endorsement to cover all earthquake related risks, i.e. both shake damage and fire following. In this way the consumer would clearly understand whether they are or are not protected in the event of earthquake. By means of the premium they would also receive a signal as to the insurance industry's assessment as to their particular vulnerability to earthquake. As with other types of property coverage, building construction, location, age and other factors can all have an important impact on the premium that will be charged. In addition, the premium setting mechanism can serve to provide an incentive for individual property owners to implement various loss mitigation techniques, many of which are relatively inexpensive. However, we understand that for a number of reasons, British Columbia is reluctant to amend the standard policy wordings, shared with all

common law provinces, to enable the industry to sell separate "property excluding earthquake" and "earthquake" policies.

Dealing with these problems, although important, will not resolve the major issue pertaining to the industry's inability to pay in the event of catastrophic earthquake losses.

It might also be noted that in the United States, and to a lesser degree in Canada, some insurers have reacted to these circumstance by limiting the amount of coverage they will provide in certain areas, or by insisting on very high deductibles for earthquake protection. These techniques may help to limit the insurer's exposure to loss, but they do so by shifting the loss to the public. This is not a means of addressing the public policy issues discussed above.

3. Regulation: The IBC has noted that solvency requirements tend to be based on the volume of premiums being written. However, if premiums are being systematically understated because a significant risk such as earthquake is not being properly priced, then estimated required levels of capital will also be understated. In fact, the capacity shortfall we are concerned about would not have arisen if regulators had been able to quantify the risks and impose correspondingly appropriate levels of capital. In fairness to the regulators, the industry itself was largely unaware of the true extent of the exposure until the Munich Re study in 1992, by which time the problem was fully developed. At the provincial level we have already commented on the problems which arise because of the fact that standard policy wordings, imbedded in legislation, contain a confusing mix of earthquake related coverage and non-earthquake related coverage. What is more, provincial officials in the provinces most affected seem reluctant to modify the current policy wordings.

Nevertheless, IBC suggests that federal and provincial regulators, working with the industry, should begin taking steps to have regulatory requirements reflect the reality of the earthquake situation as we now understand it. As a start, federal regulators have recently carried out an extensive survey of insurers' earthquake reinsurance arrangements and other aspects of their earthquake exposure.

4. Increased Capacity: The magnitude of the potential problem is sufficiently great that the IBC is suggesting that governments work with the industry to establish an earthquake reinsurance plan. The plan would function as a reinsurer for earthquake risks so that companies could cede off their earthquake exposure to the extent that it exceeded their own capacity and the capacity of their reinsurers to retain. The plan would charge premiums based on sound actuarial data. If a major quake were to occur before the plan had been able to build up sufficient capacity to deal with it, the plan would be authorized to borrow funds from governments sufficient to make up any shortfall.

As an additional encouragement for insurers to increase their own capacity, IBC recommends that companies be able to set aside reserves for future earthquake claims on a tax deductible basis. This is equivalent to saying that the companies would be prefunding an expense that they know will occur, although the timing is uncertain.

Discussions on all of the foregoing fronts are continuing between the IBC, regulators and governments. A number of initiatives are being undertaken in terms of solvency regulation, but changes in policy wordings, the establishment of reinsurance plans and the winning of favourable tax treatment have yet to show real progress.

A related issue on the earthquake front is with regard to possible public confusion with respect to coverage provided by the P/C industry parallel to the Canada Deposit Insurance Corporation. For the general insurance industry there is an industry operated and funded consumer compensation plan which covers up to \$250,000 on unpaid claims in the event of the insolvency of the insurer. Some policyholders might assume that in the event of an earthquake related insolvency they would be covered by the compensation plan. However, the plan is authorized to modify the coverage or defer the making of payments if the making of such payments could cause "financial difficulties for the property and casualty industry ... to the detriment of the public". Thus in the event of a serious earthquake leading to significant insurer insolvencies, which as we have seen the industry may not have the capacity to cover, the compensation plan could be inoperative. Since the plan is industry funded, this is just another way of stating that the industry may not have the financial capacity to meet all claims. However, it underlines the fundamental difference between the compensation plan for banks and the plan for general insurers, the former being funded by the government and the latter by the industry itself. This difference is probably not well understood at the policyholder level, and in the event of a major earthquake, there would be those who would claim that they never understood that the compensation plan was not an iron clad guarantee of payment of up to \$250,000 on their claim. Their next step might be to sue the government, in that the industry compensation plan is formally recognized in various federal and provincial statutes.

In summary, there remain some significant public policy issues in the event of a serious earthquake in a major urban area of Canada.

Likelihood of Major Industry Consolidation and Related Policy Issues

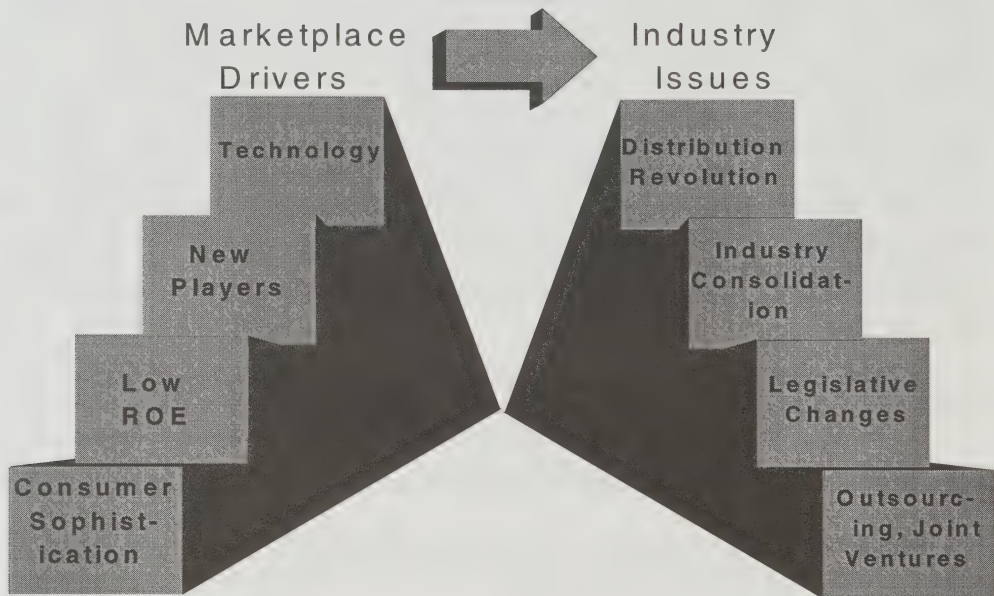
As indicated under the "Concentration" heading, and illustrated in Exhibit 7, the industry has traditionally operated with approximately 30% of the premium volume concentrated in the largest ten companies.

For a number of years industry analysts have been indicating that this picture is about to change, as forces favouring consolidation come to the fore. There are probably several reasons why this has not actually occurred:

- There is a high degree of foreign ownership and Canada's insurance market is relatively small compared to the United Kingdom, the United States and France, where the bulk of the ownership interests lie. These factors tend to suggest that the Canadian marketplace will sometimes be outside of the main sphere of interest for shareholders.
- The business has not been particularly profitable, on average, so that shareholders have likely seen little reason for aggressive expansion, particularly having in mind that compared to other types of financial institutions, the capital requirements are quite high.

Although it may merely be continuing the hollow predictions of prior years, we believe the situation really is changing now. We agree with other industry observers who are predicting that over the next ten years or so we will see quite a dramatic reduction in the numbers of companies.

Our reasons for this lie in the nature of the forces that are currently shaping the market. As illustrated below, we view four main drivers – tremendous growth in the power of technology, the threat of new entrants to the industry (primarily the banks, but also large foreign insurance groups), growing pressure from shareholders to improve returns, and growing sophistication amongst consumers – as leading to strong pressure on company management to improve efficiency and customer satisfaction by more effective means of distribution, and to improve returns by achieving greater efficiencies of scale and scope and techniques such as outsourcing and joint ventures.



We also see the same industry drivers as giving rise to changes in legislation as regulators, like shareholders, foresee problems ahead if changes are not made. Regulators will therefore be continuing to refine their techniques for ensuring adequate levels of capital, including the introduction of dynamic capital adequacy testing, giving greater recognition to the earthquake issue, continuing to strengthen corporate governance requirements, etc. All of these things raise important issues for the industry as they struggle to cope under an environment of increasing shareholder and regulatory scrutiny.

In a mature marketplace such as Canada, with a commodity type product there is little room for growth in excess of the gradual expansion of the economy, other than by acquiring business from other companies. As mentioned earlier, given the significant variations in ROE's across the

industry and the pressures for successful companies to continue to grow and improve profitability, one of the most common strategies will logically be one of acquisition.

We do not expect consolidation to have negative impact for the public. In fact, the driving forces outlined above are, in our view, giving rise to innovation in distribution and a new determination by visionary insurers to use technology to provide better and more transparent service to policyholders.

Potential Changes in the Industry's Distribution System in the Near Future

As indicated above, certain key drivers are giving rise to what some have called the "distribution revolution". Companies have been focusing on this aspect of their operations as never before, at least in the Canadian market. This has arisen as a result of a number of factors, including the need to improve returns to shareholders. However, there have been three particular factors leading to current high levels of interest in this area: (1) banks and insurers in other countries have demonstrated that non-traditional methods of marketing insurance can be very successful, (2) insurers see that Canadian banks are tending to focus on direct response marketing and other non-traditional methods of insurance sales, lending greater credibility to these new tactics and (3) enormous advances in technology in recent years have made feasible what was previously infeasible. Historically about 80% of P/C insurance has been distributed by brokers, with the balance of the market served by company affiliated agents and a small amount of direct response sales.

The major constraint faced by insurers as they search for new channels of distribution is that they typically have an existing broker network which they cannot afford to alienate for fear of losing substantial market share. If they were to "make the plunge", committing themselves to the development of an additional channel of distribution, and if that in turn caused established brokers to cease representing their company, they could lose a large part of their market share which would be very difficult to re-capture. (In the case of life insurers it is a large captive agency force rather than a broker force, but agents can also shift their allegiance to other insurers.)

Some large P/C insurers have nevertheless found, or are hoping they have found, strategies for overcoming these problems and are moving ahead despite the risks. Several established insurance groups have purchased a direct response company to provide this form of distribution within the group, but under a different corporate flag than their brokerage based company.

Incidentally, in a number of European countries direct response sales literally "took off", and for a while appeared to be potentially capable of taking over as the main form of insurance distribution. What we see now, however, is that sales have tended to plateau in the 30% to 35% market share for direct response as a whole. The explanations usually offered for this turn of events are (1) as direct response companies have grown, so too has their overhead and expense levels so they may no longer be able to offer prices that are significantly below the established market and (2) there is a certain percentage of the population that prefers to deal with an agent or

broker and these people will not switch to direct response unless the cost savings become very significant.

In Canada, regulatory constraints can also limit the potential success of direct response sales. For example, under the rules governing the Ontario automobile insurance product, companies have to "take all comers", i.e. they cannot turn down a person who requests insurance. Also in Ontario each company has to file its underwriting criteria with the Insurance Commissioner, and criteria have to be "reasonably predictive of risk" and able to "distinguish fairly between risks". Therefore an Ontario automobile insurer cannot, for example, charge higher rates to someone merely because they drive a red sports car or because they have recently been divorced. In some jurisdictions these types of underwriting criteria are acceptable. Direct response insurers in some jurisdictions have used their call centre technology to quickly screen out risks whom they do not consider to be acceptable, using the types of broad grounds just referred to, and this may have contributed to the relatively high shareholder returns of some of these companies. The somewhat more restrictive legal framework in Canada will impede the extent to which insurers are able to use direct response technology to screen risks.

In some areas of the financial services business, cross-selling or networking is seen as a potentially important new channel of distribution. For example, in Ontario we have recently seen the removal of legal impediments that prevented life insurance agents from selling other types of financial products. However, because property/casualty insurance is a fundamentally different vehicle from other financial sector products, i.e. generally viewed as an expense rather than as a savings or investment transaction, there has been little interest by the sellers of financial products such as life insurance and mutual funds, in the sale of P/C insurance. To date no group has been able to successfully combine the sale of P/C products on a large scale with other financial products through a single sales force.

Internet technology has also not yet had any significant impact in the distribution of insurance products, notwithstanding the fact that most banks are now offering on-line, PC based home banking systems. We believe this is likely to change in the near future, however, as consumers gain experience with in-home access to financial products in other areas of the financial services business. Having in mind that P/C insurance isn't usually considered to be a "financial product" in the usual sense of the word, consumer experience with merely paying their bills via the internet may be a more relevant parallel in regard to the potential distribution of P/C insurance.

A particular example of the type of technology that is quickly emerging, is Cebra's Insurexplorer. While call centre technology may be helping direct writers to win new clients from the insurance broker network, Insurgate is helping to put brokers "back in the game". The objective of Insurexplorer is to empower insurance consumers by assisting them to shop on-line for coverage and to be connected via the internet with a conveniently located insurance broker (based on a matching up of postal codes through Cebra's Insurgate). The broker in turn is able to interact electronically with the insurer to quickly and efficiently fill the policyholder's request. One can imagine as a next step the introduction of on-line technology that will enable the broker to underwrite the policy in real time so the policyholder has immediate coverage and the records of the broker and the insurer are instantly updated to reflect the transaction, all without the need for paper. By contrast, at the present time brokers typically maintain several different software

systems because each insurer with which they deal is on a different system. Also, the systems frequently give rise to multiple data entry, as the broker enters information in his or her own system and then is required to enter it separately into the insurer's system.

We appear to be at cross-roads in terms of the distribution of P/C insurance. ING Group, Hongkong Bank of Canada and CIBC Insurance are all moving ahead quickly with the direct response channels. A number of other companies are experimenting with these approaches. Cebra and others are introducing new technologies which may also significantly impact established distribution systems. We believe that traditional brokers who provide a high level of service to consumers (augmented by high technology solutions), will for the foreseeable future continue to occupy an important place in the market. However, as we have seen in other countries, a substantial proportion of the broker market overall could quickly erode as insurers continue to seek new channels of distribution that offer advantages of speed and convenience to consumers.

Impact of Technology Generally

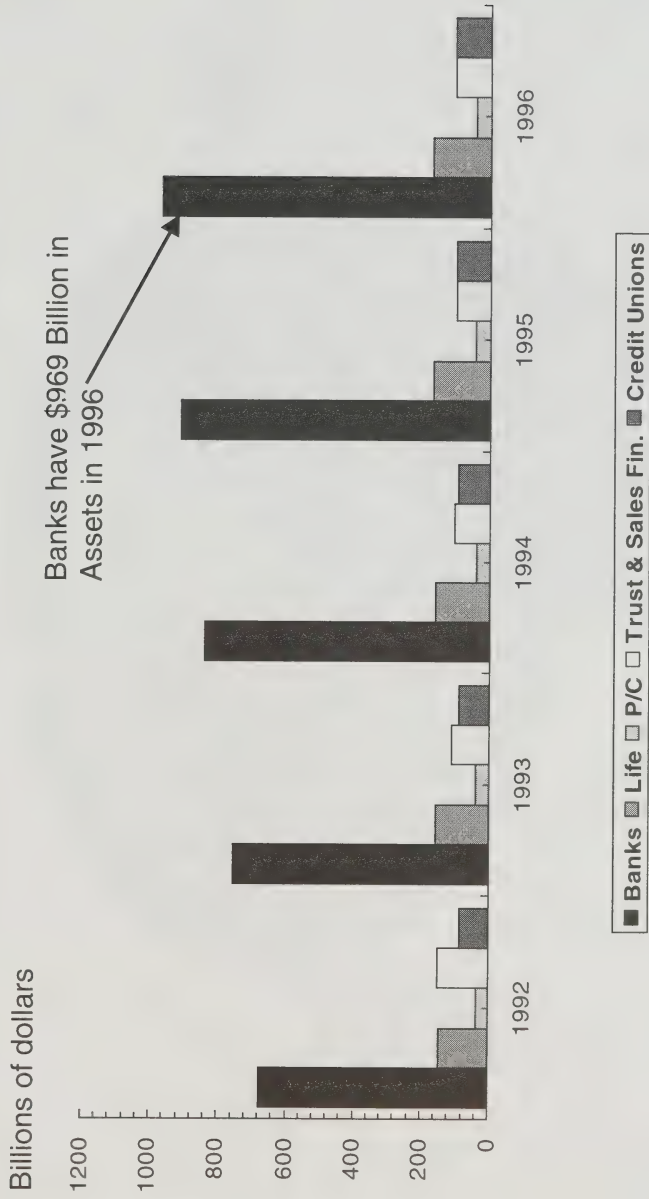
As indicated above, technology is partly driving the distribution revolution, particularly in the realm of call centre technology. The ability – based on the incoming telephone number – to answer the call in the preferred language of the policyholder, to instantly bring the appropriate file onto the screen and to know whom the policyholder last spoke to, the nature of their enquiry and so on, has meant an awesome increase in the ability to deliver consumer friendly service (or what will in any event appear to be that to the consumer) without the need for a face to face meeting. Brokers should also be able to utilize the technology to provide higher quality of service to their clients. We are also starting to see the enormous power of the search, information retrieval and purchase capabilities of the internet impact on product delivery.

Within the companies themselves technology will also have a huge impact. Large companies have tended to be burdened with old technology, and newer players have been able to leapfrog ahead of them as they start up with far more flexible, faster and user friendly systems. This is now changing as bigger companies are realizing that they cannot continue to postpone the major investments that are required.

To date, the main sizzle of the technological revolution has been at the interface between purchasers and insurers, both in terms of making initial contact and underwriting (i.e. assessment of risk and establishment of premium). In the future we will probably see an impact on claims costs as adjusting and claims settlement procedures become more automated and move on-line. Many actuarial studies have shown that the sooner an insurer is able to commence negotiations towards settling a claim, the lower is the cost of settlement. Accordingly, as consumers are able to meaningfully interact on an electronic basis regarding the occurrence and subsequent settlement of a claim, we should see cost reductions for insurers along with the possibility of higher returns and/or lower premiums.

Exhibits

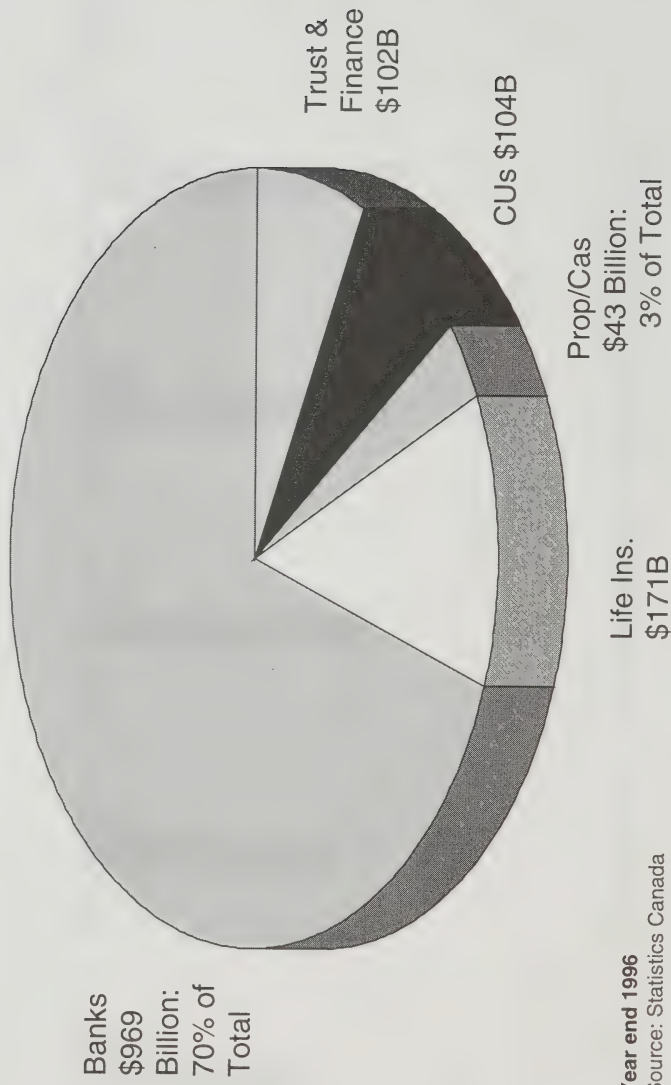
Ex. 1 - Assets of Canadian Financial Institutions



Year end 1996
Source: Statistics Canada

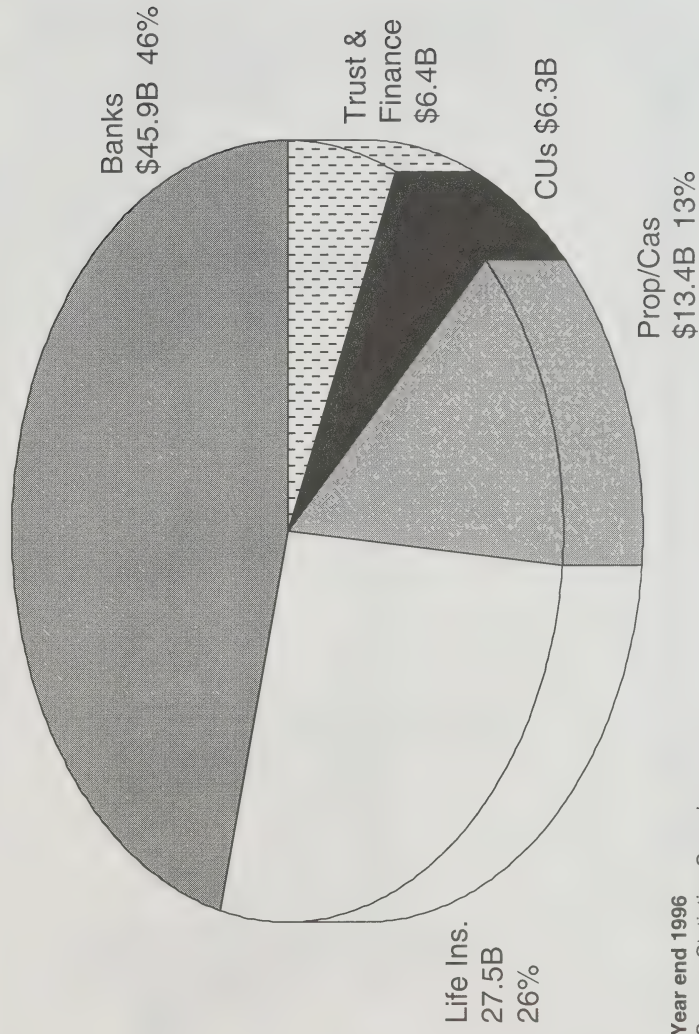
Ex. 2 - Assets of Canadian Financial Institutions

Total System Assets = \$1.4 Trillion



Ex. 3 - Capital of Canadian Financial Institutions

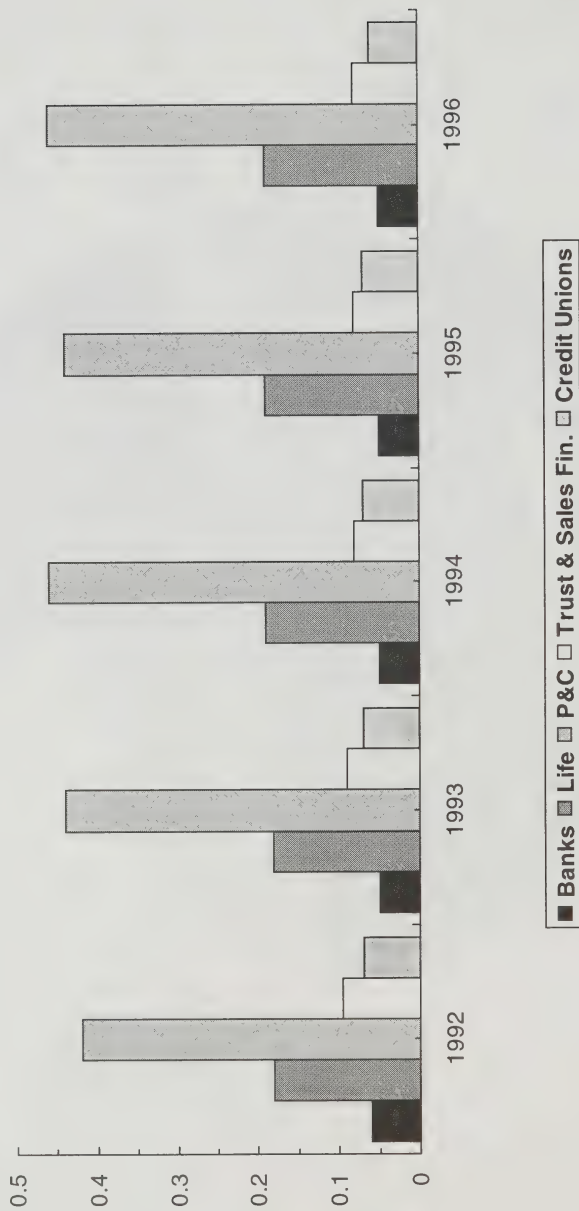
Total System Capital = \$99.6 Billion



Year end 1996
Source: Statistics Canada

Ex. 4 - Capital of Canadian Financial Institutions

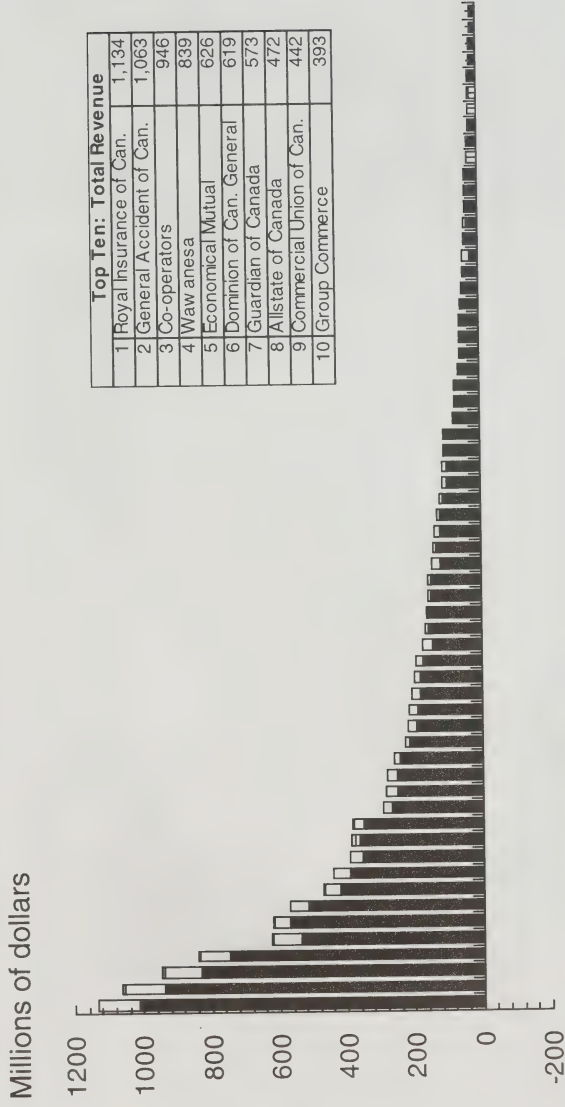
Capital as % of liabilities



Year end 1996

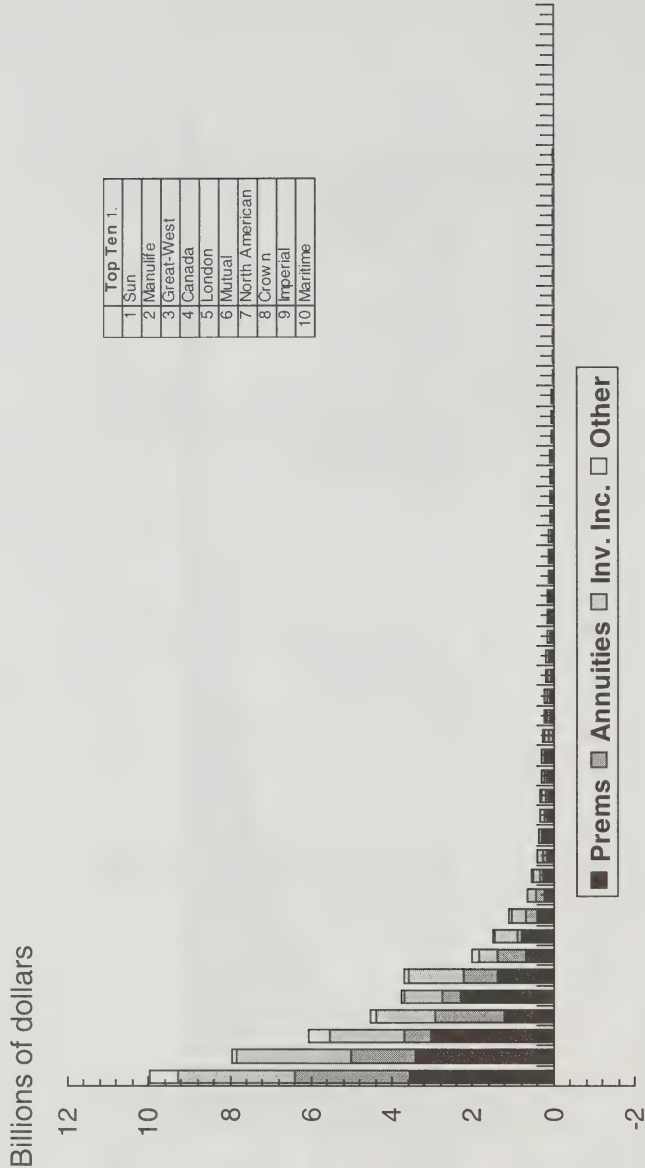
Source: Statistics Canada

Ex. 5 - Sources of Revenue: Canadian P/C Insurers



Source: 1995 Ivision/OSFI Data Base

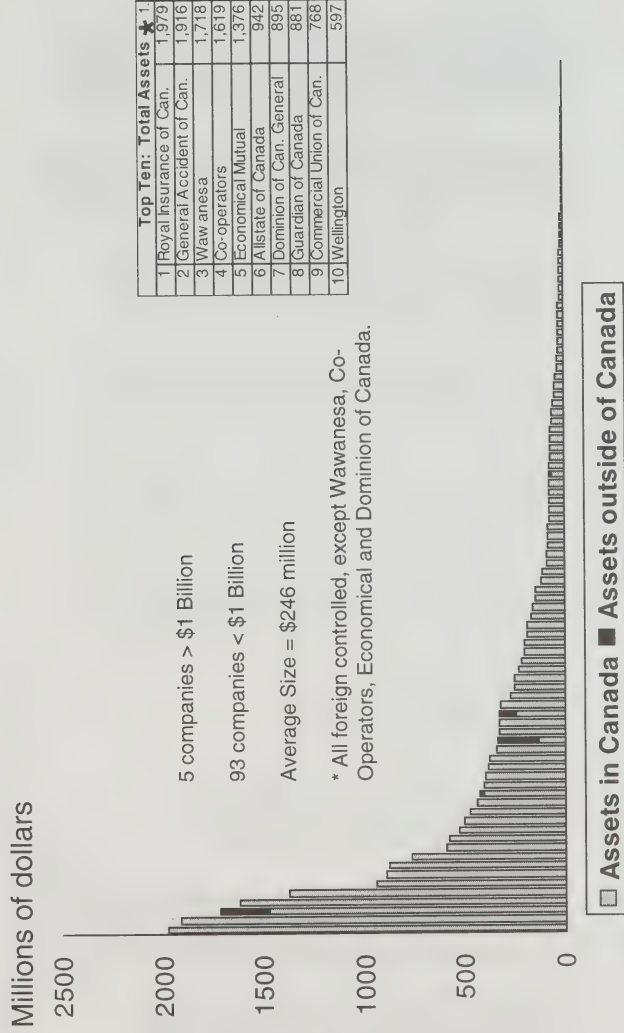
Ex 5A - Sources of Revenue Canadian Lifecosts



Note 1: Although 1996 data not yet available, during 1996 Manulife merged with North American Life, putting Manulife and Sun virtually tied for first spot.

Source: 1995 Ivision/OSFI Data Base

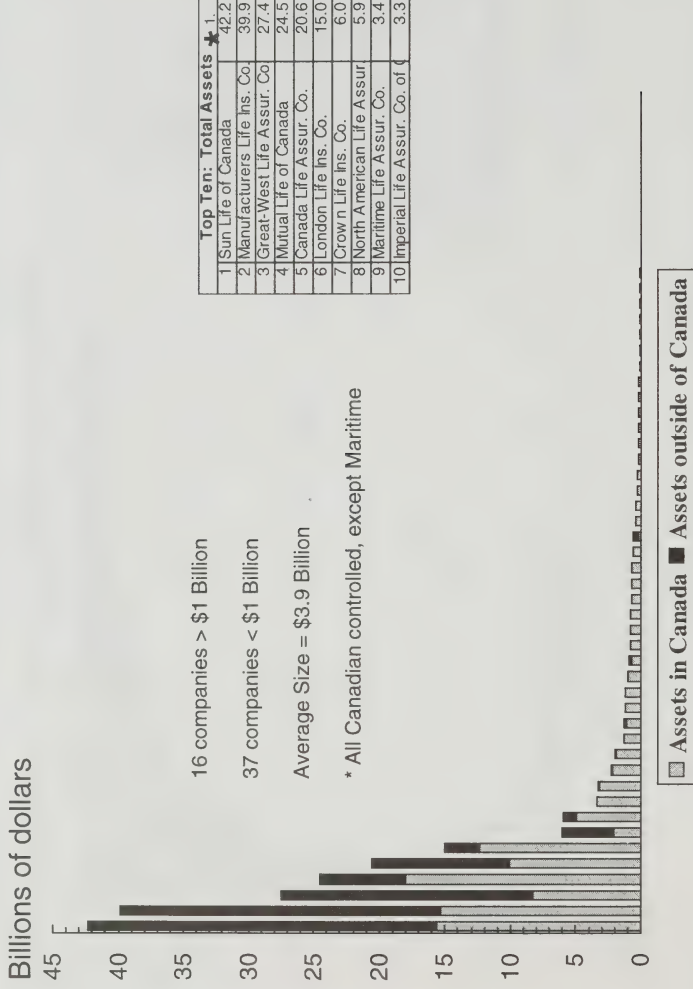
Ex. 6 - Assets of Canadian P/C Insurers



Note 1: Although 1996 data not yet available, during 1996 ING Group acquired Wellington Insurance, which together with several other subsidiaries, will probably put ING in top spot for 1996.

Source: 1995 Ivision/OSFI Data Base

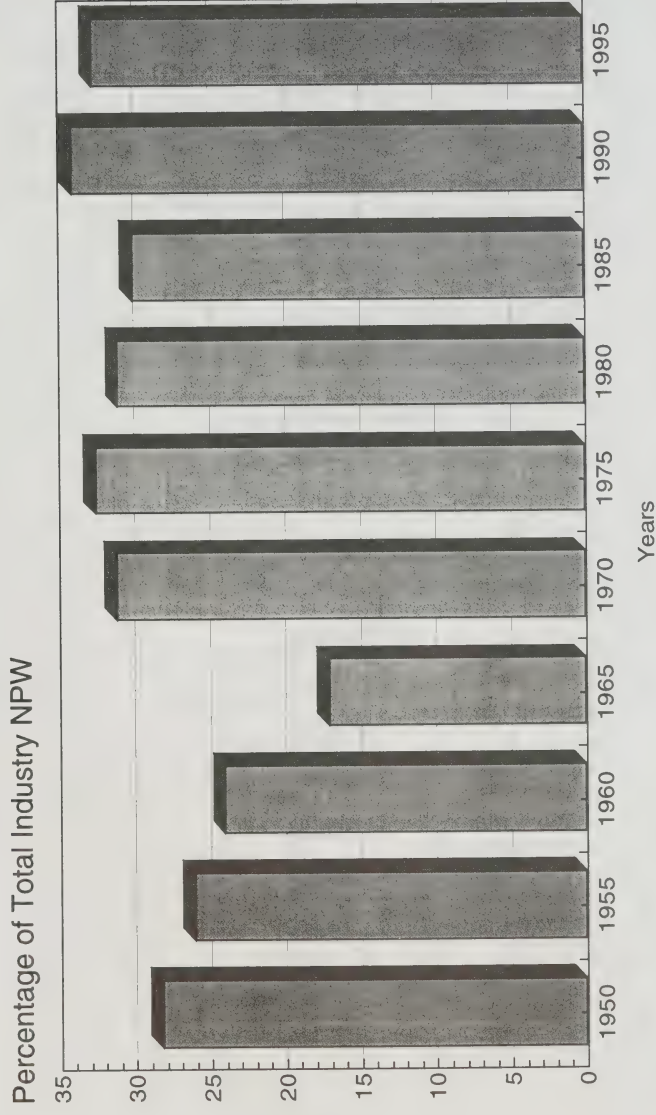
Ex 6A - Assets of Canadian Life Insurers



Note 1: Although 1996 data not yet available, during 1996 Manulife merged with North American Life, putting Manulife and Sun virtually tied for first spot.

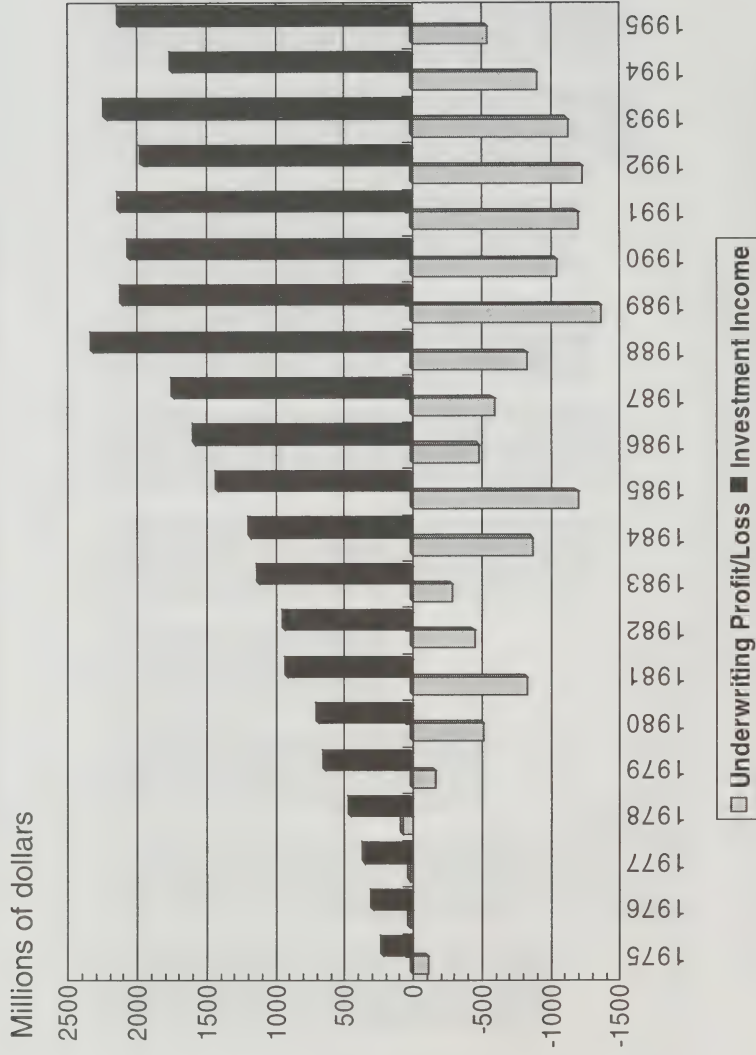
Source: 1995 Ivision/OSFI Data Base

Ex. 7 - Top 10 Companies' Percentage of NPW



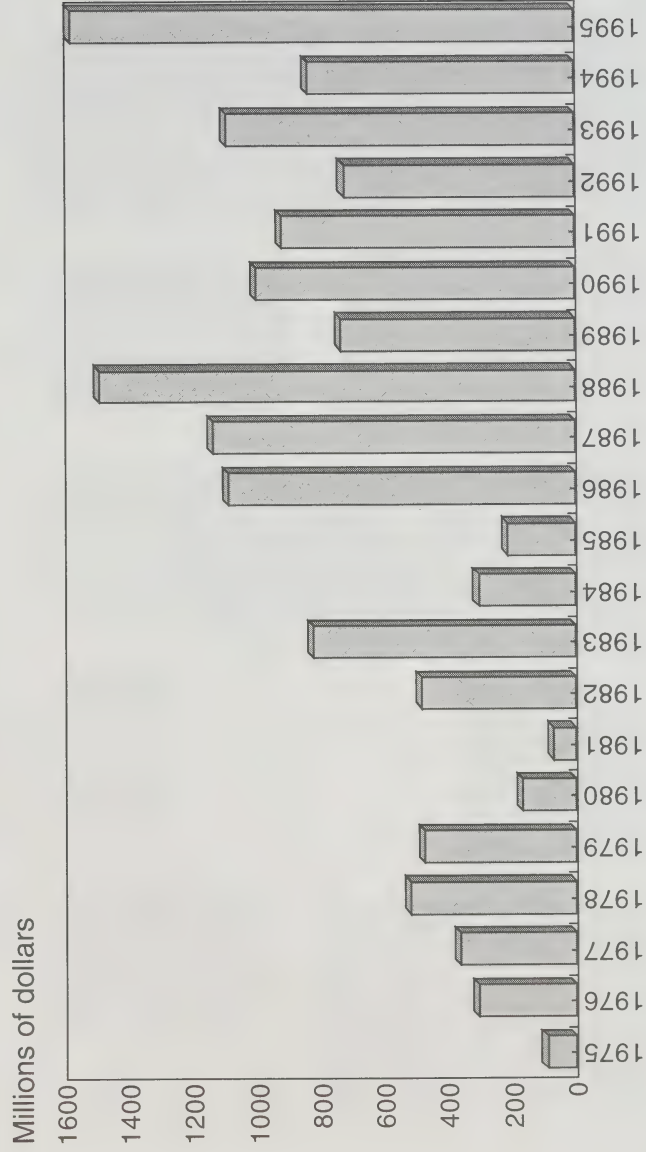
Source: Canadian Underwriter, Annual Statistical Issues

Ex. 8 - Composition of Income



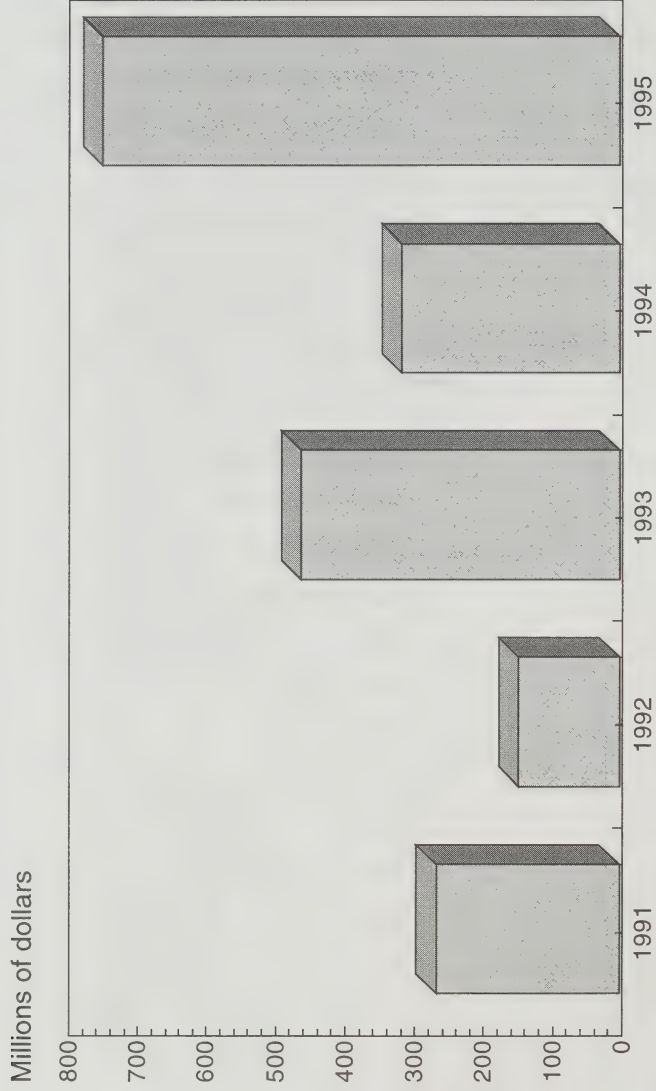
Source: Canadian Underwriter, Annual Statistical Issues

Ex. 8A - Difference between Investment Income and Underwriting Profit/Loss



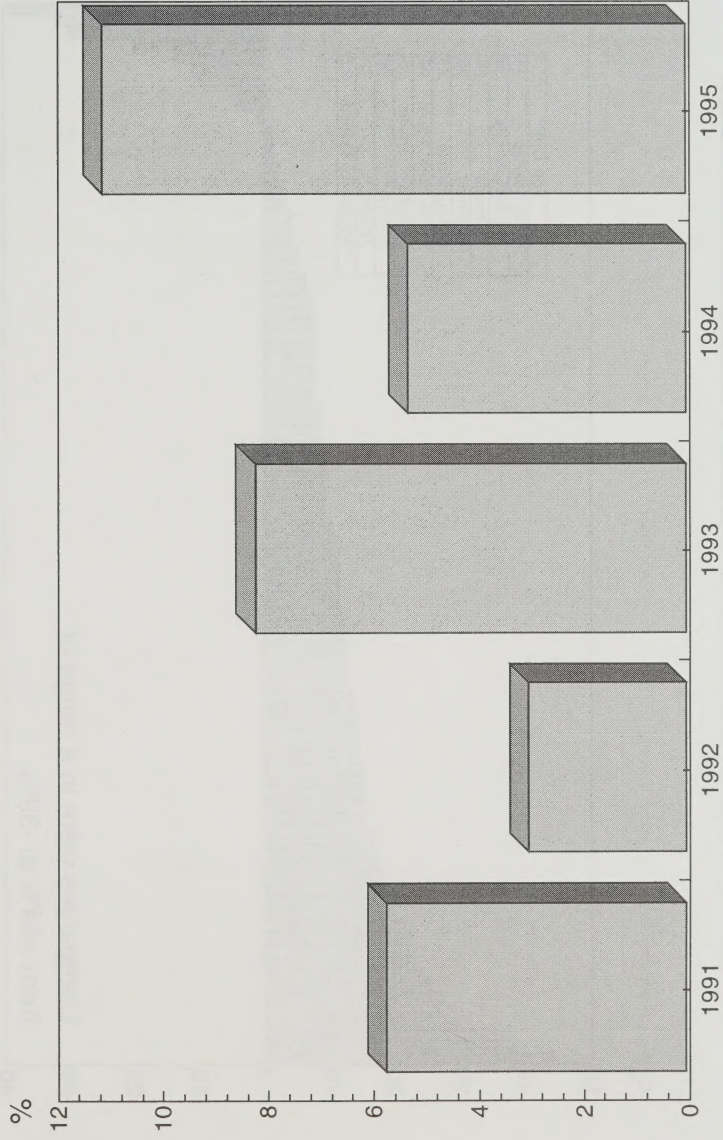
Source: Canadian Underwriter, Annual Statistical Issues

Ex. 9 - 5 Year Industry Net Income



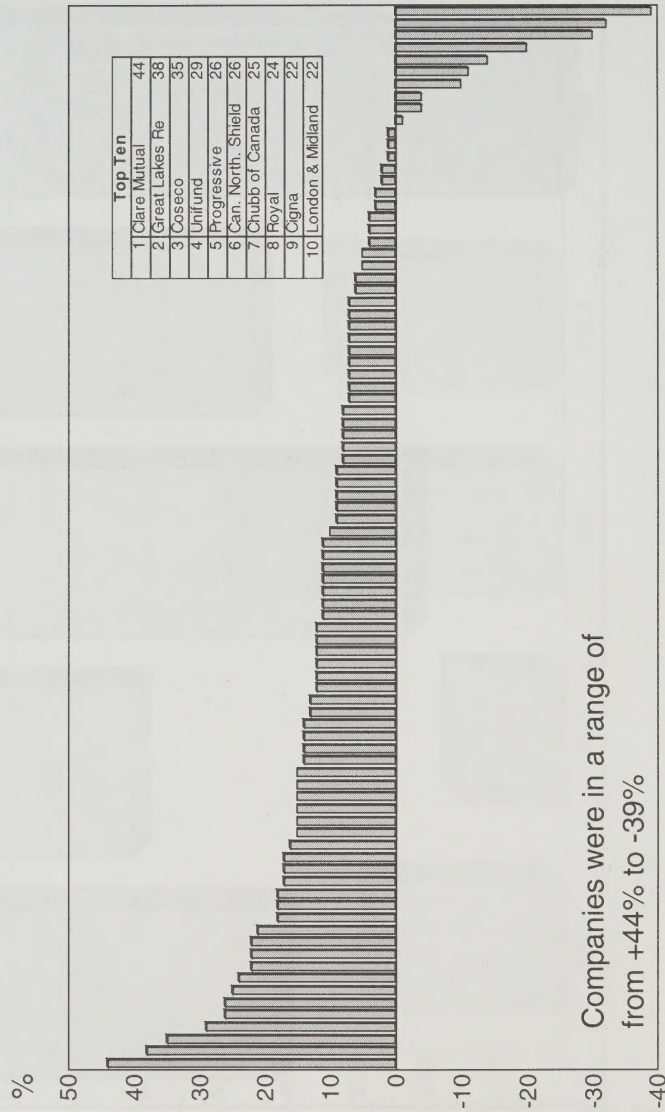
Source: Ivision/OSFI 1995 Data Base

Ex. 9A - Can. Companies Return on Capital



Source: Ivision/OSFI 1995 Data Base

Ex. 9B - 1995 Return on Capital - Federal Cos.



Source: Ivision/OSFI 1995 Data Base

